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TITLE: MANUFACTURE OF SEMICONDUCTOR DEVICE

PUBN-DATE: September 14, 1998

INVENTOR-INFORMATION:

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N/A

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APPL-DATE: March 3, 1997

INT-CL (IPC): H01L029/786, H01L021/336, H01L021/322

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a technique for effectively removing or reducing catalyst which promotes the crystallization of silicon.

SOLUTION: An insulating film 104 with an opening 105 is formed on an amorphous film 103 which contains silicon. Catalytic element is introduced through the opening 105 to turn the amorphous film 103 crystalline. After the amorphous film 103 is crystallized, an element selected out of an XV group is introduced into the crystallized film 103 through the insulating film 104 as a mask for the formation of a phosphorus-doped region 110. The region 110 is made to serve as a gettering site, so that a laterally grown region 111 where catalytic element is removed or reduced can be obtained.

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